**IN THE UNITED STATES DISTRICT COURT**
**FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

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| ECLIPSE ELECTRONICS, et al. | : | |
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| v. | : | 00-CV-547 |
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| CHUBB CORPORATION, et al. | : | |

**EXPLANATION AND ORDER**

This case involves an alleged bad-faith denial of insurance coverage. In 1998 and 1999, plaintiffs Eclipse Electronics and Windmill Holdings ("Eclipse") stored their entire inventory of electronic connectors at Eastern America Warehouse ("EAW"). In May 1999, after eighteen months of storage, Eclipse learned of severe damage to the inventory, and asserts that the entire inventory is unsaleable, rendering it worthless. The defendants, Eclipse's insurer, Chubb Corporation ("Chubb") and its subsidiaries, have refused to pay Eclipse's claim. Chubb contends that the inventory, in significant part, remains undamaged and retains a large portion of its original value. In the alternative, the defendants contend that any damage to the inventory predated the arrival of the connectors on that site, at which time the coverage for the inventory by the defendants commenced, and therefore, are not subject to coverage under the Chubb policy.[1]

[1]Prior to May 1998 the connectors were housed in a warehouse located at 51 Ash Circle in Warminster, Pennsylvania and were covered by a different insurance policy. At the time the inventory was moved to EAW, Eclipse added these connectors to a pre-existing insurance policy with a Chubb subsidiary. The insurance contract in question was a blanket policy, included a number of locations, and covered the insured for direct physical loss or damage to personal property, provided the loss or damage occurred at a location included in the policy.

***Procedural Background***

In an attempt to prove both damage to the inventory and the causation of that damage, the parties retained experts to review various items including the warehouse site, the connector inventory, and surrounding conditions. Following the required disclosure of expert reports, both parties filed motions in limine to preclude the testimony of their opponents' experts. Pursuant to the Supreme Court's decisions in Daubert v. Merrell Dow Pharm., 509 U.S. 579 (1993) and Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1997), a hearing was held on November 14, 15, and 16, 2001 to determine whether the testimony of Robert Mroczkowski, Kenneth Creech, and Max Peel, plaintiffs' proposed experts, as well as Jeffrey Schutt, Daniel McCabe, and Steven Washburn, defendants' proposed experts, is admissible under Federal Rules of Evidence 702 and 703.[2]

At the outset of the hearing, plaintiffs withdrew Mroczkowski as a witness at trial, mooting the motion as to him. Plaintiffs then presented experts, Creech and Peel and defendants presented experts, Schutt, McCabe, and Washburn. At the close of testimony the defendants agreed to the parameters of the testimony of their witnesses at trial and plaintiffs withdrew the Daubert challenges to Washburn, McCabe, and Schutt, as well as to the Trace Report. I will deny the defendants' motion based on Daubert, challenging the testimony of Peel and Creech.

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[2]Several other motions in limine have been filed in this case attempting to preclude the testimony of C. Richard Peterson, Geoffrey Osborne, Morris Cohen, Fleck Research, David Miller, and Lisa Billings. Specifically, the plaintiffs brought Daubert challenges against Miller and Billings and the defendants challenged Osborne, Cohen, and the Fleck Report. However, because the testimony of these witnesses concerns valuation and goes to damages rather than liability, I determined it was premature to hold a hearing and rule on these motions. Plaintiffs' challenge to Petersen does not require a Daubert inquiry.

***Legal Standard for Expert Testimony***

Daubert requires the district court to determine, as a threshold matter, whether expert testimony is relevant, reliable, and helpful to the finder of fact. See Elcock v. Kmart Corp., 233 F.3d 734, 744 (3d Cir. 2000). Both the Supreme Court and the Third Circuit have provided guidance as to the structure of the court's inquiry. Relevant factors include:

> (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

Id. at 745–46. Though not intended to be "exhaustive" this list provides a useful starting point for analyzing the admissibility of the expert testimony. Kannankeril v. Terminix Int'l, 128 F.3d 802, 807 n.6 (3d Cir. 1997).

***Plaintiffs' Contentions***

The plaintiffs intend to introduce the expert testimony of Max Peel at trial.[3] Peel

[3]Because the defendants criticize the testimony of Peel and Creech on virtually identical grounds, both parties have focused almost exclusively on a discussion of Peel in making their argument. Therefore, I have done the same in considering the motion. In the limited discussion of Creech alone, Chubb contends that Creech is not in a position to comment on the conditions inside of the boxes because he only inspected the outsides of those boxes. This argument fails to raise a Daubert challenge because testimony as to the conditions of the boxes is not a topic requiring expert testimony. Also, at the hearing Chubb noted that it had no objection to Creech's expertise on packaging materials and the potential effect of environmental conditions of the equipment contained in those packages. At trial the defendant will have an opportunity to cross-

hypothesizes that when electronic connectors are subject to certain types of environmental conditions, including humidity and exposure to gases typically present in an area similar to the location of the EAW, those connectors will become damaged.[4] Consistent with this hypothesis, Peel further opines that the entire inventory of Eclipse's connectors housed at EAW were in fact ruined by the humidity and gases, and as a result had no value on the market.[5] Plaintiffs argue that under Daubert and the standards articulated by the Third Circuit, the court should permit Peel to testify. In the arguments below, the plaintiffs analyze Peel's testimony under each of the relevant factors and argue that Peel's testimony is relevant, helpful, and reliable.

1. The method consists of a testable hypothesis

Eclipse contends that Peel's method clearly adopts a testable hypothesis. His theory has

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examine the expert concerning what precisely he did and did not actually observe.

[4]In Peel's report dated November 21, 2000, he concludes his comments and observations with his hypothesis:

> The discussion contained herein in addition to the results reported in TR200610 indicate that significant physical alteration of the connectors has occurred. There is sufficient evidence to indicate that components which visually do not appear altered have indeed been physically altered by the exposure in question (poor solderability, discoloration, etc.).
>
> Since the comprehensive evaluation option is cost prohibitive, the material under question is thus considered unusable with a high risk factor that said material will not perform properly in the field.

[5]I do not understand Peel's testimony to be that based on his own observations and the limited testing he conducted that all of the connectors suffered actual damage or would fail to perform. Rather, Peel's testimony indicates that given the exposure the connectors experienced at EAW, the entire inventory was ruined as it had no value because no buyer would purchase those connectors on the market.

been repeatedly tested and verified in formulating the *Battelle Study*. The *Battelle Study* was conducted and produced by W.H. Abbott and involved a multi-year industry study. The result of the research has been the creation of standards for simulating environmental conditions in a laboratory environment in order to determine the effects of those conditions on sensitive electronic equipment. *Battelle* creates four separate classifications that mirror real world environmental conditions. In laboratory testing, electronic connectors will suffer damage when exposed to these simulated industrial environments. Because the conditions at the EAW mirror conditions present in a *Battelle* "Class III" testing environment, Peel opines that the Eclipse connectors suffered damage similar to the kinds observed in the previously and extensively conducted *Battelle* experiments.

2. The method has been subject to peer review

According to plaintiffs, because the *Battelle Study* has been adopted as an industry standard by at least three organizations, it has been extensively reviewed and accepted by experts in the field of electronic connectors. The repeated adoption of the *Battelle* testing protocols indicate that they have been utilized by a large number of individuals and organizations. Further, testers must find these tests reliable and accurate predictors of real world effects because they have been used for over a decade and are still in use.

3. The known or potential rate of error

In Eclipse's view, the widespread use of Peel's methodology indicates that the environmental classification model generally leads to the correct result and carries with it a low actual and potential error rate. Companies rely on the system developed by the *Battelle Study* in

designing sensitive and expensive electronic equipment. In designing reliable machines, manufacturers depend on accuracy and similarity between the *Battelle* testing environments and the real world conditions in which the connectors must operate. If the system failed in any significant way, its use would be discontinued, not promulgated as an industry-wide standard.

4. Existence and maintenance of standards controlling the technique's operation

Plaintiffs contend that the designers of the *Battelle Study* intended to create a standard system for testing and predicting the effects of environmental conditions on electronic connectors. Therefore, due to the very nature of the *Battelle Study*, clearly articulated standards control the methodology Peel employed.

5. Whether the method is generally accepted

Plaintiffs present evidence that the Electronics Industries Alliance, the American Society of Testing and Materials, and the Instrumentation Society of America have adopted the standards articulated by the *Battelle Study*. These organizations employ the methodology of the study in order to accurately estimate the corrosive effects of particular environments. The *Battelle Study* is unquestioned in the industry and Peel's customers such as IBM, Intel, Compaq, Tyco, and Dell rely on the use of similar studies.

6. Relationship of the technique to methods established to be reliable

According to Eclipse, the technique and its relationship to the method used in the instant case are closely aligned. Years of research have provided a scientifically valid framework for estimating the effects of the environment on electronic connectors. *Battelle* is commonly used for the purpose of estimating the impact of environmental factors on electronic connectors. It is

scientifically valid to use this basis to form system of classification to predict the effects on a particular connector.

7. Qualifications of the expert witness testifying based on the methodology

Plaintiffs point to Peel's extensive experience as an engineer, having been employed for several large electronics manufacturers such as Dell, IBM, and Intel. The defendants and their experts acknowledge Peel's excellent reputation and experience as "Mr. Connector." Peel's reputation as one of the leading experts in the field enhances his ability to reliably testify concerning the effects of environmental conditions on the connectors.

8. Non-judicial uses to which the method has been put

Finally, Eclipse argues that the method used by Peel carries a stellar reputation and major manufacturers of connectors universally use it for assessing the condition of connectors. Its use by manufacturers like IBM, Dell, Compaq, and AT&T illustrate that it was not created for purposes of this litigation and is an every day part of the electronics industry.

***Defendants' Objections***

Chubb has two primary complaints with the testimony of Max Peel and offer both as reasons why his testimony does not pass Daubert's admissibility standard. Defendants base one argument upon, what they view as, a fundamental flaw in plaintiffs' position. Chubb argues that the *Battelle Study* does not actually say what Eclipse and Peel say it does, and therefore cannot possibly form a sound basis for the expert testimony. Second, Chubb contends that Peel did not conduct enough actual testing on the connectors taken from the EAW in order to reliably

determine that the entire inventory was damaged and therefore cannot testify as to the condition of any connector he did not actually test. Despite this court's request to do so, the defendants did not analyze these problems under the suggested Daubert factors enumerated by the Third Circuit and have chosen to attack Peel's testimony almost in its entirety, arguing he may only testify as to the conditions of the connectors he actually tested, as the remainder of his opinions are not based on the good grounds required for the admissibility of expert testimony.

1. *Battelle* does not say what Peel says it does

The defendants do not challenge the validity of the *Battelle Study*, but instead argue that the study has nothing to do with the methodology employed by the plaintiffs and the conclusions they draw from them. In Chubb's view, the study simply provides testing protocols to simulate environmental conditions in a laboratory in order to determine their impact on electrical connectors. According to the defendants, the Class I, II, III, and IV environments are used to describe the type of corrosion which occurs in those types of laboratory simulations when exposed to particular gases. Because the plaintiffs failed to conduct testing of the surrounding environment, they are unable to reliably match the EAW warehouse to one of the *Battelle* classifications. Simply put, unless the plaintiffs are referring to mixed gas studies, then they may not rely on the *Battelle Study*.

2. Peel did not conduct enough testing to provide useful testimony about the connectors

In the alternative, Chubb suggests that even assuming he relied on the *Battelle Study*, Peel's proposed testimony still does not rest on good grounds because he did not conduct enough tests on connectors taken from the EAW in order to reliably determine that Eclipse's inventory

had been rendered worthless based on its exposure to the conditions at the warehouse. They argue that because Peel actually examined only a fraction of the connectors in question, his conclusion regarding the utility of the entire inventory is not reliable because it is not based on any method at all. Chubb notes that Peel's qualifications alone do not render his testimony reliable under Daubert analysis and that plaintiffs still bear the burden of explaining the source of his conclusions and that the source must be a reliable one.

***Discussion***

1. Chubb's argument misconstrues the *Battelle Study*

In arguing that Peel misuses the *Battelle Study*, Chubb has adopted too narrow a view of the research's significance and meaning. In formulating the testing protocol a large number of actual environments were studied. In addition to matching types of corrosion and gases present, the *Battelle* classifications are explicitly correlated to types of "real world" conditions: Class I coordinates with telephone central offices, Class II represents business offices, Class III is a controlled industrial environment, and Class IV correlates with an uncontrolled industrial environment. While the defendants argue that Peel had no basis for concluding the environment around the EAW facility was a Class III environment because he did not measure for the presence of particular gases in the air or rely on someone else's measurements, I find that his opinion concerning the classification of the warehouse rests on sound scientific grounds.[6]

[6]Whether EAW was in fact a Class III environment is a factual question which Peel takes as a given. Relying on his own observations of the EAW site, the observations contained in Creech's report, and his extensive knowledge of the *Battelle* classification system, Peel's

Based on his own knowledge of the research that created the *Battelle Study* and the conclusions of that study which have become an industry standard, Peel's testimony is admissible under Daubert. His expert opinion is not, as the defendants claim, based solely on his random visual observations but instead rests on a more inclusive reading of *Battelle*. Because of his knowledge of what Class III environments typically look like Max Peel may testify that he believes the EAW operated in a Class III environment and may describe the effects that such an environment could have on electronic connectors.

2. Lack of testing does not bar Peel from opining on the potential condition of the inventory

Chubb's assertion that Peel did not conduct enough testing of the inventory to testify reliably and helpfully amounts to the assertion that a better and more reliable method existed for determining the condition and utility of the connectors. Daubert, however, was not intended to limit scientific and technical testimony to results obtained through a single, superior method of inquiry, and alterative hypotheses and means of testing remain permissible topics of expert testimony as long as each is reliable and helpful. See In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 744 (3d Cir. 1994) ("Paoli II"). "Daubert does not set up a test of which opinion has the best foundation, but rather whether any particular opinion is based on valid reasoning and reliable methodology." Kannankeril v. Terminix Int'l, 128 F.3d 802, 806 (3d Cir.1997).

While Peel's opinion might be more valuable had he conducted more tests on the Eclipse

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conclusion is based on sufficient grounds to meet the Daubert standard. The finder of fact at trial is not required to accept these conclusions and may choose to disregard Peel's testimony. This, however, does not preclude him from testifying.

inventory and provided "icing on the cake," the test for admitting his expert testimony is not a question of whether his methods were perfect or whether a possibility exists that the "expert might have done a better job." See Oddi v. Ford Motor Co., 234 F.3d 136, 156 (3d Cir. 2000). An expert should not be required to "reinvent the wheel" and start his inquiry from square one in order to be deemed qualified under Daubert.[7] He may rely on the research, studies, and expertise of others, so long as they are of the sort of information regularly relied on by experts in the field. See Paoli II, 35 F.3d at 748.

The fact that Peel did not conduct extensive testing on his own, does not render his opinion, in its entirety, unreliable and unhelpful. While the defendants' concern is a legitimate one, is a more appropriate subject for cross-examination than a motion in limine. "The analysis of the conclusions themselves is for the trier of fact when the expert is subject to cross-examination." Kannankeril, 128 F.3d at 807. Peel's conclusion about the extent of the *potential* damage to the inventory satisfies the criteria for expert testimony in that it is reliable, relevant, and helpful to the trier of fact based solely on the *Battelle Study* and his knowledge of the effects of humidity and chemicals on electronic connectors. Any remaining testing conducted (or not conducted) at the EAW or any other relevant location and any methods employed (or lack thereof) do not vitiate Peel's qualifications to testify under Daubert that the conditions present in

[7]An analogous situation involves physician experts testifying concerning a differential diagnosis. The testifying doctor need not have actually conducted a physical examination of the patient. "In fact, it is perfectly acceptable ... for a physician to rely on examinations and tests performed by other medical practitioners." Kannakeril, 128 F.3d at 807. Because the formulation of the *Battelle Study* involved extensive testing of the effects of environmental conditions on connectors, it is permissible for Peel to rely on the previously conducted study in formulating his opinions and conclusions.

a Class III environment, like the one at EAW, could be the source of corrosion in electronic connectors. There will be ample opportunity at trial for Chubb to raise these issues on cross-examination and it will be perfectly permissible for the jury to consider them in weighing the evidence and deciding whether to accept Peel's conclusions.[8]

I find that the arguments proffered by the plaintiffs are persuasive and adopt them to support the finding that the testimony of Peel is relevant, based on good grounds, and will be helpful to the jury in this case. Therefore, Peel meets the standards prescribed by Daubert and can testify as an expert witness at trial. While I recognize that the defendants raise legitimate concerns about Peel's testimony, those issues can be adequately addressed through cross-examination and do not overcome plaintiffs' sound Daubert analysis.

***Conclusion***

The Federal Rules of Evidence clearly illustrate a preference for admitting any evidence which might assist the trier of fact and indicate that this policy extends to the admissibility of expert testimony. See Kannankeril, 128 F.3d at 806. In determining the reliability of expert testimony, the standard is lower than one of correctness, and need not be right, only based on good grounds. See Schieber v. City of Philadelphia, No. CIV.A. 98-5648, 2000 WL 1670888, at *2 (E.D. Pa. November 7, 2000). Here, Max Peel's knowledge of the *Battelle Study* and the

[8]Similarly, the lack of extensive testing does not preclude Peel from testifying that the entire inventory was worthless on the market. Based on the fact that the conditions at EAW could have caused damage to the connectors and that some of the connectors were visually and/or functionally damaged, and his extensive knowledge of the industry, Peel has a sound basis for his conclusion that no one would have purchased Eclipse's inventory of connectors.

effects of environmental conditions on electronic connectors provide good grounds for his testimony regarding the condition of the Eclipse inventory. Because the plaintiffs have satisfied their burden, the defendants' motion as to Max Peel and Kenneth Creech is denied.

**ORDER**

**AND NOW**, this _____ day of December 2001, it is **ORDERED** that:

(1) Defendants' motion in limine to exclude the testimony of Robert Mroczkowski, Kenneth Creech, and Max Peel (docket entry # 42) is **DENIED AS MOOT** with regard to Mroczkowski and is**DENIED** with regard to Creech and Peel.

(2) Plaintiffs' motion in limine to exclude the expert report of Steven T. Washburn (docket entry # 68) is **DENIED AS MOOT**.

(3) Plaintiffs' motion in limine to exclude the testimony of David Miller, Lisa Billings, Daniel McCabe, and Jeffrey Schutt of Trace Laboratories (docket entry # 38) is **DENIED AS MOOT** only as McCabe and Schutt. The parties must stipulate to the limits of Schutt's permissible testimony as stated on the record of November 16, 2001.

ANITA B. BRODY, J.

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